

PERTUSSIS

I. IDENTIFICATION

- A. **CLINICAL CASE DEFINITION:** A cough illness lasting at least two weeks with one of the following: paroxysms of coughing, inspiratory “whoop”, or post-tussive vomiting, without other apparent cause.
- B. **REPORTING CRITERIA:** Clinical diagnosis.
- C. **LABORATORY CRITERIA FOR CONFIRMATION:**
- Culture isolation of *Bordetella pertussis* from clinical specimen, **OR**
 - Positive polymerase chain reaction (PCR) for *B. pertussis*.
- D. **KENTUCKY CASE DEFINITION:** An acute cough illness of any duration that is culture positive or one that meets the clinical case definition and is PCR confirmed or epidemiologically linked to a laboratory confirmed case (either culture or PCR).

NOTES:

- In outbreak settings, a case may be defined as a cough illness lasting at least two weeks (as reported by a health professional). Because direct fluorescent antibody testing of nasopharyngeal secretions has been shown in some studies to have low sensitivity and variable sensitivity, it should not be relied on as a criterion for laboratory confirmation.
- Serological testing is not yet standardized. Therefore, cases meeting the clinical case definition that are serologically positive, but not culture or PCR positive will be reported as probable cases.

II. ACTIONS REQUIRED / PREVENTION MEASURES

- A. **KENTUCKY DISEASE SURVEILLANCE REQUIRES URGENT NOTIFICATION:** REPORT TO THE LOCAL OR STATE HEALTH DEPARTMENT **IMMEDIATELY** upon recognition of a case or suspected case in a time period not greater than 24 hours. If health department personnel cannot be contacted directly, notification shall be made by electronic submission or by telephone to the emergency number of the Division of Epidemiology and Health Planning: **1-888-973-7678**.
- B. **EPIDEMIOLOGY REPORTS REQUESTED:**
1. Kentucky Reportable Disease Form – EPID 200 (Rev. Jan/03).
 2. Pertussis Surveillance Worksheet

C. PREVENTION MEASURES:

- Routinely administer initial DTaP (diphtheria and tetanus toxoids and acellular pertussis vaccine) series at 2, 4 and 6 months of age and booster doses at 12-18 months of age and before school entry at (4-6 years of age). Pertussis vaccine is not recommended after the seventh birthday.

D. PUBLIC HEALTH INTERVENTIONS:

- Recommend a 14-day course of erythromycin for all individuals with confirmed or clinical pertussis. Trimethoprim/sulfamethoxazole is an alternative for persons who cannot tolerate erythromycin or for whom erythromycin is contraindicated.
- Exclude all individuals with confirmed pertussis from work, school or other public contact until at least five days of erythromycin (or trimethoprim/sulfamethoxazole) therapy have been completed or until three weeks after onset of paroxysms if appropriate antimicrobial therapy is not taken.
- Assure a 14-day course of erythromycin (or trimethoprim/sulfamethoxazole) prophylaxis for all household contacts of individuals with confirmed pertussis regardless of immunization status. Immediate treatment of household contacts should take precedence over testing household members to identify additional cases.
- Recommend the above preventive regimen for all of the case's close contacts. Close contacts are persons with repeated indoor face-to-face exposure to the case, including those in day care settings and, in certain situations, work and school settings.
- Inform contacts about clinical symptoms of pertussis. Symptomatic contacts should be medically evaluated and, if determined to have pertussis, excluded from work, school, and other public contact until at least five days of erythromycin (or trimethoprim/sulfamethoxazole) therapy have been completed.
- Assure that all children six weeks through six years of age (up to the seventh birthday) who are unimmunized or inadequately immunized receive DTaP vaccine.
- *Bordetella parapertussis*. These guidelines are applicable when *B. parapertussis* is isolated from an individual with clinical pertussis.

III. CONTACTS FOR CONSULTATION

- A. KENTUCKY DEPARTMENT FOR PUBLIC HEALTH, IMMUNIZATION PROGRAM:
502-564-4478.
- B. KENTUCKY DEPARTMENT FOR PUBLIC HEALTH, COMMUNICABLE DISEASE
BRANCH: 502-564-3261.
- C. KENTUCKY DEPARTMENT FOR PUBLIC HEALTH, SURVEILLANCE AND
HEALTH DATA BRANCH: 502-564-3418.

- D. KENTUCKY DEPARTMENT FOR PUBLIC HEALTH, DIVISION OF LABORATORY SERVICES: 502-564-4446.

III. RELATED REFERENCES

1. Chin, James, ed. PERTUSSIS, PARAPERTUSSIS. In: Control of Communicable Diseases Manual. 17th ed. Washington, DC: American Public Health Association, 2000: 375-379.
2. Pickering, LK, ed. Pertussis. In: 2000 Red Book: Report of the Committee on Infectious Diseases. 25th ed. Elk Grove Village, IL: American Academy of Pediatrics, 2000: 435-448.
3. Pertussis Vaccination: Use of Acellular Pertussis Vaccines Among Infants and Children: Recommendations of the ACIP; MMWR 1997; 46 (No. RR-7): 1-25.
3. Use of Diphtheria Toxoid-Tetanus Toxoid- Acellular Pertussis Vaccine as a Five-Dose Series: Supplemental Recommendations of the ACIP; MMWR 2000: 49 (No. RR-13): 1-8.